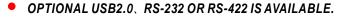
# $\mathsf{PRC}$

# AUTO-REVERSING POWER SUPPLY

# wisman high voltage power supply

PAGE 1 OF 2



- 0-30KV, REMOTELY PROGRAMMABLE
- 0-300uA, REMOTELY PROGRAMMABLE.
- POLARITY REVERSIBLE UPON COMMAND IN <1 SEC AT NO LOAD</li>
- LOW STORED ENERGY, CURRENT LIMITED OUTPUT.
- COST EFFECTIVE MODULAR DESIGN.
- LOCAL AND REMOTE CONTROL.
- OEM CUSTOMIZATION AVAILABLE.

# Wisman's PRC modular high voltage power supply is ideal for OEM usage. It is specifically designed to meet the needs of applications requiring a hot switched reversible output voltage. The output polarity of the unit can be quickly and safely reversed via the Polarity Control

Both the output voltage and current are fully adjustable via ground referenced remote programming signals such that 0 to 10Vdc corresponds to 0 to 100% rated output voltage and current.

Signal provided on the interface connecter.

Remote motioning functionality is provided by voltage and current test points such that 0 to 10Vdc corresponds to 0 to 100% rated voltage and current. Additionally remote polarity and mode indicators provide a compre-hensive overview of power supply operation.

An optional USB 2.0 RS-232 or RS-422 is available.

#### Polarity:

Auto reversible via command

#### Power:

10 watts, maximum

#### Voltage Regulation:

Load: 0.01% of output voltage no load to full load. Line:  $\pm 0.01\%$  for  $\pm 10\%$  change in input voltage.

#### Ripple:

0.1% Vp-p

#### Stability:

0.02% per 8 hours after 1/2 hour warm-up.

#### **Environmental:**

Operational: 0° C to +40° C Storage: -40° C to +85° C

#### **Humidity:**

10% to 85% RH, non condensing

# Cooling:

Free air Convection

#### **Dimensions:**

3.5" H x 5.0" W x 10.0" D

(89.00mm x 127.00mm x 254.00mm)

# Interface Connector:

25 pin male D connector

#### TYPICAL APPLICATIONS:

Electrospinning

Mass Spectrometry

Capillary Electrophoresis

Electrostatic Research

**DNA** Analysis

Microchip Electrophoresis

Electrostatic Chuck (E-Chuck)

#### **OPTIONS:**

USB USB Interface RS232 RS-232 Interface RS422 RS-422 Interface

5VPM 0 to 5 Volt Programming and Monitor Scaling

## **SPECIFICATIONS:**

Input:

+24Vdc $\pm$ 10% .

Output:

See "CZE SELECTION TABLE"



Tel: 086-029-33693480/81 Fax: 086-029-33693482

Websit: Http:<u>www.wismanhv.com</u> E-MAIL: <u>sales@wismanhv.com</u>

Add: Tsinghua Scince Park, Shiji Rd, Xianyang, Shaanxi, P.R.China

AUTO-REVERSING POWER SUPPLY

PAGE 2 OF 2

#### **CZE SELECTION TABLE**

K۷	mA	signal	K۷	mA	signal
5	2.0	PRC5PN10	20	0.5	PRC20PN10
10	1.0	PRC10PN10	25	0.4	PRC25PN10
15	0.67	PRC15PN10	30	0.3	PRC30PN9

## **ANALOG INTERFACE CONNECTOR**

I/O		Signal	
1	+24Vdc Return	Power Return	
2	+24Vdc Return	Power Return	
3	+24Vdc Return	Power Return	
4		Open or <1Vdc = HV OFF, >3.4Vdc	
	HV Enable/Inhibit	(up to 15Vdc) = HV ON	
5	Voltage Test Point	0-10 volts=0 to full scale, Zout=1ΚΩ	
6	Current Test Point	0-10 volts=0 to full scale, Zout=1ΚΩ	
7	Chassis Ground	Ground	
8	Remote Voltage Control	0-10 volts = 0 to full scale, Zin=10M Ω	
9	Remote Current Control	0-10 volts = 0 to full scale, Zin=10M $\Omega$	
10	+10Vdc	+10Vdc Reference Output	
11	Signal Return	Signal Return	
12	D 1 '1 O 1 1	Open or >3.4Vdc (up to 15Vdc) = Positive	
	Polarity Control	Polarity. Grounded or < 1 Vdc = Negative Polarity	
13	Danisius Dalanisuladiansa	+24Vdc sourced through a 100 Ω series	
	Positive Polarity Indicator	limiting resistor. +24Vdc = active signal	
14	+24Vdc Input	Power Input	
15	+24Vdc Input	Power Input	
16	Chassis Ground	Ground	
17	N. C. D. C. L. C.	+24Vdc sourced through a 100 Ω series	
	Negative Polarity Indicator	limiting resistor. +24Vdc = active signal	
		Open collector pulled up internally to +15Vdc	
18	I Mode Indicator	through 2.7k $\Omega$ resistor with a 470 $\Omega$ limiting	
		resistorin series. Transistor OFF = signal active	
		Open collector pulled up internally to +15Vdc	
19	V Mode Indicator	through 2.7k $\Omega$ resistor with a 470 $\Omega$ limiting	
		resistorin series. Transistor OFF=signal active	
20	Return Current Test Point	0 to 10Vdc=0 to 100% rated output current, as	
	Return Current Test Point	measured returned from load. Zout=10k $\Omega$ ,1%	
21	Load Datura	High Voltage Return Point. Required	
	Load Return	for GFI circuit functionality	
22		Open collector pulled up internally to +15Vdc	
	Ground Fault Indicator	through4.7k $\Omega$ resistor with a 470 $\Omega$ limiting	
		resistor in series. Transistor OFF = signal active	
23	Spare	No Connection	
24	Spare	No Connection	
25	Spare	No Connection	

#### RS-232 RS-422 DIGITAL INTERFACE

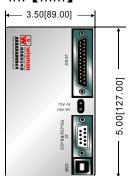
J2		SIGNAL
1	N/C	No Connection
2	TXD	Transmit Data
3	RXD	Receive Data
4	N/C	No Connection
5	SGND	Signal Ground
6	RA+	RA+ Receive
7	RB-	RB- Receive
8	TB-	TB- Transmit
9	TA+	TB+ Transmit

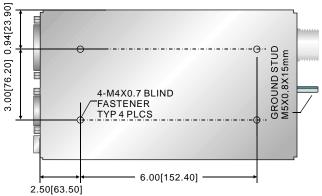
## **USB DIGITAL INTERFACE**

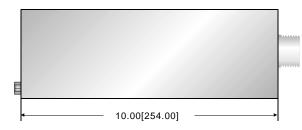
USB		SIGNAL	
1	VBUS	+5Vdc	
2	D-	Data-	
3	D+	Data+	
4	GND	Ground	

#### DIMENSIONS: in. [mm]











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